NOAA Report for RRTIII Meeting

Submitted by Frank Csulak, NOAA, SSC

June 18-19, 2019

NOAA's Emergency Response Division (ERD)

Since 1 October 2018, NOAA's Emergency Response Division (ERD) has responded to more than 100 incidents, including oil discharges, hazardous material releases and sunken vessels. On pace to exceed 200 responses for the third year in a row.

DUBLIN EXPRESS Oil Spill

On March 28, 2019, as much as 100,000 gallons of bunker fuel was reportedly released between North Carolina and New York, from a container vessel. Pictured are crew members from Miller

Environmental Group Inc. conducting a shore cleanup on Monday, April 1 at Jacob Riis Park Beach in New York. Image credit: U.S. Coast Guard.

On March 28, the U.S. Coast Guard notified NOAA that a container vessel's hull was damaged during heavy sea conditions when a container fell from the deck — losing between 12 and 16 containers off the coast of North Carolina, resulting in the release of an estimated 100,000 gallons of #6 bunker An unknown amount of fuel was discharged into New York Harbor waterways.

Sector North Carolina received reports of containers floating in the water off Cape Hatteras along the vessel's trackline, which were confirmed by subsequent overflights, these containers eventually sank (nothing hazardous in them). Multiple offshore overflights were conducted with no oil located, however NOAA Satellite Information Office was able to locate a possible 3.8NM by 0.5NM slick approximately 51NM off of Chincoteague, VA. Frank Csulak, NOAA SSC, provided an oil trajectory based on the vessel trackline that showed the oil remaining offshore.

Due to the trackline along the Mid-Atlantic coast Sectors North Carolina, Hampton Roads, Maryland-National Capitol Region, and Delaware Bay were notified and good communications were maintained regarding efforts to notify their partners, resource trustees, and conducting shoreline assessments for potential impact.

The crew of the *Dublin Express* observed an oil sheen as the vessel was docking. Areas along the shore of Elizabeth, New Jersey and Staten Island, New York were impacted. NOAA provided the Coast Guard with a trajectory model for the release.

Shoreline cleanup and assessment technique (SCAT) teams found tar balls on the shoreline along rockaway Beach on March 31. According to a Coast Guard press release, the vessel was carrying approximately 300,000 gallons of fuel. After evaluating the data collected on board, the Coast Guard believes that up to 100,000 gallons of heavy fuel-oil was released by the vessel throughout the time it was traveling along the East Coast to New York. The fuel spilled from a 15-inch hole in one of the fuel tanks.

The *Dublin Express* has been cleaned, repaired, and approved for departure. NOAA trajectories do not predict further impacts at this time. The cause of the incident remains under investigation by the U.S. Coast Guard.

OHMSETT Dispersant Workshop

A 2-day workshop (June 25-26) will be hosted by Dr. Tim Nedwed (Exxon Mobil) during a two-week test period (June 17 – 28) at the Ohmsett wave tank facility (https://www.ohmsett.com/facility.html).

Holding the workshop at Ohmsett will provide an opportunity for attendees to go out to the tank and watch a few of the dispersant-effectiveness tests planned by Exxon Mobil. The capacity for the workshop is around 40 people.

Anyone interested in attending can stay for just the workshop or the entire workshop week or the entire 2 weeks. Testing will start Monday morning June 17. There is an opportunity for researchers to piggy-back onto the planned program with some additional testing, sample collection, or on-site analysis where practical. A final test plan will be distributed when available.

Ohmsett is located on Naval Weapons Station Earl in Leonardo, NJ. This means attendees will have to submit forms and get approval to enter the base. However, if you submit the attached form by the end of April, you should be able to get clearance to Earl. The completed visitor form and appropriate documentation should be scanned sent to Mike Brennan by e-mail. Identify Mike as the Base Sponsor on the form and note that you will be attending the EM June 25-26 Dispersant Workshop.

Mike Brennan

Ohmsett Liaison

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Please note that this meeting is still tentative and dependent on the number of responses received. However, last year the 40-participant capacity of the Ohmsett meeting room was filled, so a good turn out is expected this year as well.

The invitation is open to those whom you think might benefit from the workshop (grad students / post docs included). If requests exceed capacity of the meeting space and/or raise site safety concerns – a selection process will be implemented. Depending on the number of responses, project PI's may be given a slot to describe their research in the agenda.

Please advise, Michael Brennan and/or Tim Nedwed (tim.j.nedwed@exxonmobil.com) if you and/or other members of your team plan to attend. We would be glad to answer any questions.

USCG Sector New York PREP TTX and ERMA Training

USCG Sector New York has scheduled their 2019 Preparedness and Response Exercise Program (PREP) Tabletop Exercise (TTX) being held on Wednesday, June 26th, at the Middlesex County Fire Academy at 1001 Fire Academy Drive, in Sayreville, NJ 08872.

The exercise will take place from 0900 (check-in starting at 0800) to approximately 1500, with order in lunch option, and will encompass a scenario involving a tank barge transiting Raritan Bay on the way to the Kinder Morgan Facility in Perth Amboy to offload cargo, when the barge runs aground on rocks holding up a buoy in the Raritan Bay West Reach channel. The collision will result in a maximum most probable discharge of high sulfur crude oil into the bay, affecting shorelines and sensitive areas. The purpose of this workshop is to test the effectiveness of the Area Contingency Plan (ACP), and to bring different agencies and relevant industries together to work through a scenario and test our unified response capabilities.

NOAA will hosting an 8 hour Environmental Response Management Application (ERMA) training session in association with USCG Sector New York's 26 June Tabletop Exercise. The ERMA training will take place on 25 June (8 hours) at the Middlesex County Fire Academy, Sayreville, NJ. There are 40 individuals singed up to attend the training, therefore not accepting any more applicants. However, seats remain available for the 23 July ERMA training which will take place at the Exxon/Mobil Facility, 600 Billingsport Rd. Paulsboro, NJ.

Training attendees will need an ERMA account to do the training and access ERMA.

Please direct all questions and requests to Mr. Frank Csulak of NOAA at frank.csulak@noaa.gov.

ERMA no longer supports Internet Explorer. If IE is your default browser you will need to copy and paste the link in the password email into Microsoft's Edge browser, or Chrome/Firefox/Safari.

For an ERMA account. Please go to the Atlantic ERMA Site and at the upper right corner, click on Login and and fill out the request account form.
https://erma.noaa.gov/ERMA/RequestAccount?sitename=atlantic

Use Frank Csulak as your NOAA OR&R Sponsor.

For additional information, contact
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USCG Sector Delaware Bay PREP Exercise and ERMA Training

The scenario is a 1 million gallon oil spill resulting from an off-shore lightering incident that takes place approx. 30 nautical miles off Cape Henlopen, DE. The responders (Unified Command - UC) made up of the Coast Guard, Responsible Party, State Environmental Departments and subject matter expert advisors plan to consider all options, including application of dispersants, in-situ burning, and mechanical alternatives, to remove the oil at sea to prevent it from impacting the DE and NJ beaches in late July.

Dispersant Decision Making Workshop, 0900-1600, 22 July
Environmental Response Management Application (ERMA) Training, 0930-1600, 23 July
PREP Exercise, 0700-1700, 24 July

The Dispersant Workshop, ERMA training and the PREP Exercise will all be held at the following location:

Exxon/Mobil Facility, 600 Billingsport Rd. Paulsboro, NJ.

NOAA will be providing Environmental Response Management Application (ERMA) training session in association with USCG Sector Delaware Bay's PREP Exercise. The ERMA training will take place on 23 July (8 hours) at ExxonMobile, Paulsboro, NJ.

Training attendees will need an ERMA account to do the training and access ERMA.

There is a 30 individual capacity. Please discuss with your various agencies and see if anyone would benefit from this training. Please
direct all questions and requests to Mr. Frank Csulak of NOAA at frank.csulak@noaa.gov.

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USCG Sector Long Island Sound to Conduct M/V COIMBRA Assessment

M/V COIMBRA is classified by NOAA as a RULET (Remediation of Underwater Legacy Environmental Threats) vessel and ranked #2 risk in the U.S. Coast Guard District 1 area of responsibility. Oil sheens have been reported historically in the wreck□s vicinity. Its position is approximately 26 nautical miles south of Shinnecock, NY. This 422 foot tanker, built in 1937, departed NY unescorted and met U-123 on January 15, 1942. A torpedo struck the starboard

side. She was carrying 64,800 barrels of lubricating oil and Bunker C fuel oil as well as munitions for onboard weapons. 30 crewmembers and six gunners were lost.

In 2015, the Coast Guard started receiving pollution reports from the National Environmental Satellite Data and Information Service via NOAA of abnormalities that could be oil. COIMBRA is a routine suspect of these satellite reports. No sheens have affected the shoreline and no tar balls have been discovered. Sheens have been light.

On June 10th, 2017, U.S. Navy Mobile Dive and Salvage Unit 2 conducted a dive on COIMBRA along with a task force from Sector Long Island Sound. They completed a side-scan sonar of the vessel as shown below to map orientation. Divers also collected metal hull and oil samples for fingerprinting.

The Federal On Scene Coordinator (FOSC), Captain Kevin Reed, has determined that COIMBRA poses a substantial threat to the environment and has opened the Oil Spill Liability Trust Fund to complete an assessment of the vessel. A Unified Command has been established between the U.S. Coast Guard and New York Department of Environmental Conservation.

A task force has been established to advise the FOSC, comprised of members from USCG Atlantic Strike Team, NY Department of Environmental Conservation, USCG District 1 Response Advisory Team, U.S. Coast Guard Academy Department of Science, Navy Supervisor of Salvage and Diving, National Oceanic and Atmospheric Administration, USCG Office Environmental Management, and USCG Salvage Engineering Response Team. Resolve Marine Group has been contracted to conduct an assessment on COIMBRA, along with members of the task force, beginning in June 2019. The operation will begin with an assessment to determine the presence of any oil onboard. This will include surveying the vessel with remote operated vehicles and using divers to determine the volume of any remaining oil in tanks, collect oil samples via mini-hot taps, and determine the material condition of the hull steel. Upon completing the underwater assessment, the task force will determine the need to conduct possible removal operations for any discovered oil product. Resolves vessel, the SHELIA BORDELON, will have a spill response team and equipment onboard to respond to an average most probable discharge. To date, 360,000 gallons of lube oil has been removed and they have yet to begin removing the #6 oil.

Tentative deployment to COIMBRA is June 2019 to complete work aboard the SHELIA BORDELON for 21 days. The BOA will be Resolve Marine Group.

Accompanying the deployment will be Navy Supervisor of Salvage, the Coast Guard Academy Science Department Chair, the Coast Guard Atlantic Strike Team, select members of USCG Sector Long Island Sound, Marine Safety Detachment Coram, NOAA Senior Scientific Support Coordinator, the First District Response Advisory Team, Coast Guard Headquarters Office of Environmental Management (CG-47), Coast Guard Salvage Engineering Response Team (CG SERT), Coast Guard Office of Marine Environmental Response (CG-MER), and New York Department of Environmental Conservation.

NOAA SSC point of contact is Steve Lehmann.

NOAA Office of Response and Restoration Research Projects

Detection of Oil Thickness and Emulsion Mixtures using Remote Sensing Platforms

Three-dimensional mapping of dissolved hydrocarbons and oil droplets using a REMUS AUV

Differentially weathered surface oil samples collected with time and distance from surface source

Development and Field Testing of Portable, COTS ROV for Shallow Surface Mixing Water Column Characterization

Development and Calibration of Multispectral UAS (Ohmsett)

Comparing Advances in Estimating and Measuring Oil Slick Thickness

Shoreline Cleanup and Assessment Team (SCAT) and Cleanup Termination Enhancements

Adios Oil Database Enhancements

Defining Protocols for Replanting as an Oil Spill Response Tactic in Coastal Marshes

Development and Implementation of Remote Sensing Techniques for Oil Spill Monitoring and Storm Damage Assessment in an Operational Context

Water Column Modeling

Early Life Stage Field Bioassay Development

Air–Water Interface Exposure Characterization in Relation to Degree of Surface Oiling

Bottlenose Dolphin Inhalation/Aspiration

Advancing AUV and UAS Capabilities to Characterize Water Column and Surface Oil in Ice Environments (USCG RDC)